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Exhibit 4

Health Data on Active Duty Service Members with Gender Dysphoria

Comparison health care data with statistical analysis, deployment, treatment plan, surgical recovery times, separation data and cost data

December 13 2017

Gender Dysphoria (GD) Medical Utilization Comparisons Methodology

- Reviewed select medical utilization (i.e., mental health visits/admissions, hormones, surgical and other procedures) for the Study Group of 994 TG service members with GD
 - Limited the group studied to those in an Active Duty or Activated
 Guard status for the entire period of time from FY16 to current (July 2017)
- Final GD Study Group = 691
 - Study Period: Oct 2015 to July 2017 (22 months)

Medical Utilization Comparisons Methodology

Created two control groups:

- "MH+ Control Group" Matched 5:1 with non-TG service members by:
 - Major Depressive Disorder (Yes/No)
 - Anxiety (Yes/No)
 - Adjustment Disorder (Yes/No)
 - Matching included gender, age group (<25, 25-40, 40+), rank group, Service
 - MH+ Control Cohort = 3,455
- "AG Control Group" Matched 5:1 with non-TG service members by:
 - Matching included age group (<25, 25-40, 40+) and gender
 - AG Control Cohort = 3,455
- Study Period Oct 2015 July 2017

Study Group Descriptive Data

		STUDY GROUP Count	STUDY GROUP Percentage
Study Group Size	N	691	100%
	<25	281	41%
Age Group	25-40	388	56%
	40>	22	3%
Gender	Female	349	51%
Gender	Male	342	49%
	Army	226	33%
	Air Force	188	27%
Sponsor Service	Marines	38	5%
	Navy	216	31%
	Other	23	3%
	Jr Enlisted	354	51%
Rank Group	Sn Enlisted	293	42%
	Officer	44	6%

Descriptive Data (continued)

		STUDY COHORT Count	STUDY COHORT Percentage
Study Group Size	N	691	100%
Major Depressive	No	529	77%
Disorder	Yes	162	23%
Adimeters out Disconder	No	488	71%
Adjustment Disorder	Yes	203	29%
	No	543	79%
Anxiety Disorder	Yes	148	21%

The Age-Gender matched 'AG Control Group' - Major Depressive Disorder,
 Anxiety, and Adjustment were not very prevalent

Regression Analysis

- Multiple regression models were run for both control groups to assess if there is significant difference between the study and control groups regarding psychotherapy and any mental health utilization.
- Dependent Variables of Interest
 - Psychotherapy visits
 - Any mental health visits
- Regressions controlled for combinations of the following independent variables:
 - Age Group
 - Gender
 - Rank (officer vs. enlisted)
 - Service
 - Presence of MH Conditions
 - Major Depressive Disorder, Anxiety or Adjustment

Summary of Results: Psychotherapy Encounters

	STUDY GROUP (n=691)		MH+ CONTROL GROUP (n=3455)		AG CONTR (n=3	
	Outpatient (Oct 2015-July 2017)		Outpatient (Oct 2015-July 2017)		Outpa (Oct 2015-	
	Avg. Encounters per service member	Total Encounters	Avg. Encounters per service member	Total Encounters	Avg. Encounters per service member	Total Encounters
Psychotherapy	20.4	14,088	7.9	27,237	1.99	6,864

- After controlling for age, sex, rank, service, and presence of any of the three mental health disorders (MDD, Anxiety, Adjustment), there is a **statistically significant** effect in psychotherapy utilization between study group and both control groups.
 - Individuals in the Study Group (GD) on average generate **13 more** psychotherapy encounters over a **22 month period**.
 - The Study Group had 2.5 x the number of psychotherapy visits than the MH control group and 10 x the number of visits than the age and gender matched control group

Summary of Results: Any Mental Health Encounters

	STUDY GROUP (n=691)		MH+ CONTROL GROUP (n=3455)		AG CONTROL GROUP (n=3455)	
	Outpa (Oct 2015-J		Outpatient (Oct 2015-July 2017)		Outpa (Oct 2015-	
	Avg. Encounters per service member	Total Encounters	Avg. Encounters per service member	Total Encounters	Avg. Encounters per service member	Total Encounters
Any Mental Health	28.1	19,379	10.7	36,818	2.69	9,297

- After controlling for age, sex, rank, service, and presence of any of the three mental health disorders (MDD, Anxiety, Adjustment), there is a **statistically significant** effect in mental health utilization between study group and both control groups.
 - Individuals in the Study Group (GD) on average generate 18 more mental encounters over a 22 month period.
 - The Study Group had 9 x the number of MH visits than the age and gender matched group
 - The Study Group had over 2.5 x as many MH visits as the MH control group

Summary of Results: Suicidal Ideation

	STUDY GROUP (n=691)		MH+ CONTROL GROUP (n=3455)			AG CONTROL GROUP (n=3455)		
		(Inpatient and Outpatient) (Oct 2015-July 2017)		(Inpatient and Outpatient) (Oct 2015-July 2017)		(Inpatient and Outpatient) (Oct 2015-July 2017)		
	Individuals Receiving Treatment	Percentage	Individuals Receiving Treatment	Percentage		Individuals Receiving Treatment	Percentage	
Suicidal Ideation	81	12%	235	7%		52	1.5%	

- Also ran multiple logistic regressions to calculate the odds ratio of suicidal ideation while controlling for age and gender.
 - Only 12% of our Study Group reported suicidal ideation compared to the 25% reported in one civilian sector study.
 - The Study Group had an 8 x higher rate of suicide ideation than age and gender matched AD SMs over a 22 month period.
 - Result is statistically significant
 - Note: The AG Control Group did not have sufficient suicidal ideation prevalence for analysis.

DEPLOYMENT DATA

Study Group Deployment History

994

 Service members with a primary diagnosis of gender dysphoria – FY2016 to July 2017

393

 Deployed in support of OEF/OIF/OND (OCONUS)

114

 Deployed following a primary diagnosis of gender dysphoria

69

 Deployed following a primary diagnosis of gender dysphoria AND after July 1, 2016

Cohort Deployment History

114

• Deployed following a primary diagnosis of gender dysphoria

6

- Were medically evacuated from CENTCON following a primary diagnosis of gender dysphoria
- 4 had a mental health diagnosis identified as the reason for evacuation

69

 Deployed following a primary diagnosis of gender dysphoria AND after July 1, 2016

3

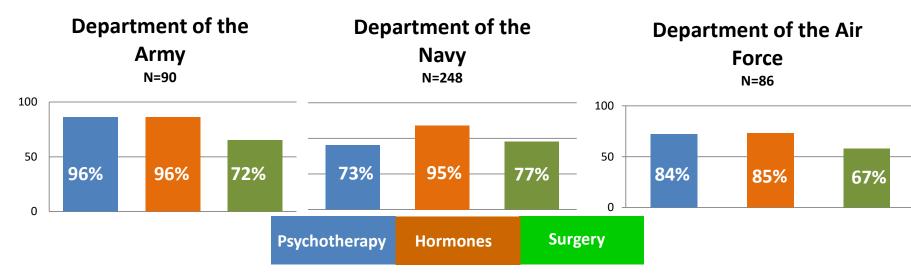
- Were medically evacuated from CENTCOM following a primary diagnosis of gender dysphoria AND after July 1, 2016
- 1 had a mental health diagnosis identified as the reason for evacuation

TREATMENT PLAN DATA

Service Data Request

- Data collection will cover the time period from September
 1, 2016, to August 31, 2017
- Data request included:
 - Number of SMs with approved treatment plans
 - Number of SMs receiving psychotherapy and cross-sex hormones as part of the treatment plan
 - Number of SMs with sex reassignment surgery as part of the treatment plan
 - Total number of profiles/LIMDUs and days on restricted duty for each transitioning SM
 - Total number of days on profile/LIMDU/restricted duty
- Army, Navy and Air Force coordinated definitions and methodologies of collection for data elements

Service Data – Approved Treatment Plans*



	ARMY	NAVY	AIR FORCE
Number of Service Members with surgeries as part of treatment plan^	65	190	58
Percent of Treatment Plans with surgery included	72%	77%	67%

^{*}Services only had access to treatment plans submitted to their TG care teams (TGCT/MMDT)

^A Civilian study shows that 23% of MtF and 2% FtM TG individuals initially wanting surgery actually have surgery.

SERVICE DATA – Types of Surgeries Included in Treatment Plans

	ARMY	NAVY	AIR FORCE
Hysterectomy/Oophorectomy	**	97	14
Orchiectomy	**	61	12
Mastectomy/Augmentation	**	113	38
Genital Reassignment	**	118	19
Other	-	-	27

^{*} An individual service member may have more than one surgical procedure in their treatment plan

^{**} Army responded this level of detail is not consistently provided or individualized in proposed medical treatment plans on file.

SERVICE DATA – Profiles/LIMDUs/Restricted Duty

	ARMY*	NAVY**		AIR FORCE***		
Number of Service Members with a diagnosis of Gender Dysphoria on Profile/LIMDU/Restricted Duty	87 (90)	22 (248)		22 (248)		52 (86)
Average Number of Profiles/LIMDUs/Restricted Duty per transitioning SM	3.4	0.1		1.9		
Average number of days a		1-90	3			
transitioning Service Member is in		90-180	12			
a Profile/LIMDU/Restricted Duty	167.4	180-270	3	159		
status		270-360	2			
		>360	2			
Range of Days on Profile	0 - 537	1 - 360+		1 - 365		

^{*} Army – profiles for SMs with GD; indication for profile not known; could be for transition or for other indications.

^{**} Navy - policy dictates no LIMDU for gender transition. All LIMDUs are for non-transition indications. SMs undergoing transition are non-deployable for the first 3 to 6 months of hormone therapy but not put on LIMDU. Navy provided Avg. Number of days on LIMDU in block times.

^{***} Air Force - profiles are for transition.

SURGICAL RECOVERY TIME DATA

Estimated Recovery Times, by Surgery*

Selected Surgical Procedure	Average Recovery Time (assumes no complications)	Notes
Hysterectomy*/** (laparoscopic approach, recommended)	4 weeks desk job 6-8 weeks unrestricted activity	(data for all indications) Major complication = 9.5% Minor complication = 28%
Hysterectomy* (abdominal approach) with or w/o Oophorectomy	6-8 weeks	(data for all indications) Major complication = 6% Minor complication = 27%
Chest masculinization* (Mastectomy)	2-4 weeks (desk job) 4-6 weeks (physically demanding job)	Low complications
Orchiectomy*	3-4 weeks desk job 6 weeks unrestricted activity	Very low complications
<u>Vaginoplasty</u> **	6 weeks desk jobs (some restrictions) 6-8 weeks resume physical activity 3 months for unrestricted activity	 Recommend stay in area of hospital where procedure performed for up to 2 weeks Major complications 1.5%-10% Minor complications ~25%,self limiting
Phalloplasty** (2 stages, 2 nd surg 9-12 mos later)	6 weeks desk job 8-12 weeks return to activity 3 months unrestricted	Recommends stay in area of hospital where procedure performed for up to 3 weeks/complications 10-80%
Metoidioplasty** (2 stages, 2 nd stage performed >/=3 mos later) 3 weeks desk job 6 weeks return to activity 8 weeks unrestricted		 Recommends stay in area of hospital where procedure performed for up to 3 weeks <5% complication rate

^{*}From Mayo Clinic, UCSF Center of Excellence for Transgender Health websites and **Dr. Loren Schechter

Estimated Recovery Time for Vaginoplasty from Two SHCP Waiver Requests*,**

PROCEDURE	CENTER	RECOVERY TIMES				
		Inpatient	Post-op Bedrest	Con leave	Light duty	Non- deployable
Vaginoplasty	Papillon Center New Hope, PA	6 days	3 days	6 weeks	2-3 months	6 months
Vaginoplasty	Papillon Center	6 days	3 days	6 weeks	2-3 months	6 months

^{*}Times are not cumulative; total non-deployable = 6 months

^{**}Information from the Defense Health Agency

Surgeries in Study Group, FY2016 to Present Includes Direct Care and Purchased Care

SE	ERVICE	Resection of Uterus/ Hysterectomy	Mastectomy	Excision Procedures on the Testes	Totals
Air Force	Active Duty	3			3
Army	Active Duty	6	5	2	13
	Guard/Reserve		1		1
Marine Corps	Active Duty	1	6		7
Navy	Active Duty	4	3	2	9
	Guard/Reserve	1			1
Totals		15	15	4	34

33 procedures were performed in MTFs, 1 in Purchased Care. Of the 34 procedures performed, 25 were for an indication of GD

Time to Return to Full Duty After Transition Surgery in MTFs

- The Services and NCR were requested to provide actual recovery times (times to return to full duty) for gender transition surgeries performed in the MTFs
- Surgeries performed included mastectomies, hysterectomies, orchiectomies and facial feminization
- Recovery times were available for 36 procedures performed in 13 different MTFs
 - 6 Army
 - 4 Navy
 - 1 Air Force
 - 2 NCR

MASTECTOMY

CPT Code 19303-19304

	Primary Procedure Code	# Days to Full Duty	Comments
Army	19303	30	
Army	19303	14	
Army	19304	75	
Army	19394	42	
Army	19304	28	
Army	19304	27	
Navy	19303	42	Average # Days =
Navy	19303	42	39
Navy	19303	42	Range 14 - 75
Navy	19303	42	
Navy	19304	42	
Navy	19303	42	
Navy	19303	42	
Navy	19303	42	
Navy	19304	42	
NCR	19304	30	23

HYSTERECTOMY

CPT Code OUT9FZZ

	Primary Procedure Code	# Days to Full Duty	Comments
Army	OUT9FZZ	68	
Army	OUT9FZZ	42	
Army	OUT9FZZ	42	
Army	OUT9FZZ	87	
Army	OUT9FZZ	96	
Navy	OUT9FZZ	56	Average # Days =
Navy	OUT9FZZ	56	67
Navy	OUT9FZZ	56	Range 30 – 237
Navy	OUT9FZZ	56	
Navy	OUT9FZZ	60	(Avg # days w/o
Navy	OUT9FZZ	45	AF = 55)
Navy	OUT9FZZ	45	
Air Force	OUT9FZZ	237	
NCR	OUT9FZZ	31	
NCR	58262	30	24

ORCHIECTOMY

CPT Code 54520

	Primary Procedure Code	# Days to Full Duty	Comments
Army	54520	45	
Navy	54520	35	Average # days = 38.3 Range 35-45
Navy	54520	35	

OTHER PROCEDURES

	Procedure (s)	# Days to Full Duty	Comments
Army	Facial Feminization	42	1 case
Army	Hysterectomy & Mastectomy	89	Procedures performed two months apart

SEPARATION DATA

Separation Data

Cohort members	993*				
Cohort members that are continuously AD 10/1/2015-7/1/2017	691				
Cohort members who may have separated	302				
Cohort members who may have separated in separation file	194				
Unknown	108				

Reason for Separation

High to Low Comparison

Study Cohort

Frequency Percent Expiration of term of service 74 38.14 19 9.79 Temporary disability retirement Permanent disability retirement 12 6.19 Unqualified for active duty, other 9 4.64 4.12 Disability, severance pay Retirement, 20 to 30 years of service 4.12 8 4.12 Drugs 3.61 Early release, in the national interest Character or behavior disorder 3.61 6 Officer commissioning program 3.09 Failure to meet weight or body fat standards 2.58 2.06 Military service academy Pattern of minor disciplinary infractions 1.55 Commission of a serious offense 3 1.55 Failure to meet minimum qualifications for 3 1.55 retention Other 1.55 Alcoholism 1.03 Court-martial 1.03 Juvenile offender 1.03 1.03 Erroneous enlistment or induction 0.52 Condition existing prior to service 0.52 Discreditable incidents, civilian or military 1 0.52 Unfitness, reason unknown Unsatisfactory performance (former Expeditious 1 0.52 Discharge program) Entry level performance and conduct (former 1 0.52 Trainee Discharge program) 1 0.52 Secretarial authority 0.52 Breach of contract 194 Total

Percentages of all Separations for the Same reasons from 10/1/2015 - 7/1/2017

(not matched, taken from entire set of 408,409 SMs separated)

	Frequency	Percent
Expiration of term of service	197,959	48.47
Retirement, 20 to 30 years of service	39,925	9.78
Unqualified for active duty, other	18,979	4.65
Disability, severance pay	11,480	2.81
Permanent disability retirement	10,801	2.64
Temporary disability retirement	10,408	2.55
Officer commissioning program	9,691	2.37
Entry level performance and conduct (former Trainee Discharge program)	9,176	2.25
Unsatisfactory performance (former Expeditious Discharge program)	9,061	2.22
Drugs	8,836	2.16
Early release, in the national interest	8,603	2.11
Commission of a serious offense	6,979	1.71
Failure to meet weight or body fat standards	6,064	1.48
Other	5,147	1.26
Erroneous enlistment or induction	4,105	1.01
Discreditable incidents, civilian or military	3,538	0.87
Juvenile offender	2,618	0.64
Character or behavior disorder	2,480	0.61
Failure to meet minimum qualifications for retention	2,386	0.58
Pattern of minor disciplinary infractions	1,508	0.37
Court-martial	1,216	0.3
Military service academy	1,213	0.3
Alcoholism	1,081	0.26
Unfitness, reason unknown	692	0.17
Secretarial authority	624	0.15
Condition existing prior to service	475	0.12 28
Breach of contract	135	0.03

ADMINISTRATIVE RECORD 003038

Reason for Separation

Alphabetical Comparison

Study Cohort

Percent Frequency Alcoholism 1.03 Breach of contract 0.52 Character or behavior disorder 3.61 Commission of a serious offense 1.55 Condition existing prior to service 0.52 Court-martial 1.03 Disability, severance pay 4.12 Discreditable incidents, civilian or military 0.52 4.12 Drugs Early release, in the national interest 3.61 Entry level performance and conduct (former Trainee 0.52 Discharge program) Erroneous enlistment or induction 1.03 74 38.14 Expiration of term of service Failure to meet minimum qualifications for retention 1.55 Failure to meet weight or body fat standards 2.58 Juvenile offender 1.03 Military service academy 2.06 3.09 Officer commissioning program 1.55 Other Pattern of minor disciplinary infractions 1.55 Permanent disability retirement 12 6.19 Retirement, 20 to 30 years of service 4.12 Secretarial authority 0.52 19 9.79 Temporary disability retirement 0.52 Unfitness, reason unknown Unqualified for active duty, other 4.64 Unsatisfactory performance (former Expeditious Discharge program) 0.52 194 Total

Percentages of All Separations for the Same Reasons from 10/1/2015 - 7/1/2017 (not matched,

taken from entire set of 408,409 SMs separated)

	Frequency	Percent
Alcoholism	1,081	0.26
AWOL or desertion	284	0.07
Breach of contract	135	0.03
Character or behavior disorder	2,480	0.61
Civil court conviction	267	0.07
Commission of a serious offense	6,979	1.71
Condition existing prior to service	475	0.12
Court-martial	1,216	0.3
Disability, severance pay	11,480	2.81
Discreditable incidents, civilian or military	3,538	0.87
Drugs	8,836	2.16
Early release, in the national interest	8,603	2.11
Entry level performance and conduct (former Trainee		
Discharge program)	9,176	2.25
Erroneous enlistment or induction	4,105	1.01
Expiration of term of service	197,959	48.47
Failure to meet minimum qualifications for retention	2,386	0.58
Failure to meet weight or body fat standards	6,064	1.48
Juvenile offender	2,618	0.64
Military service academy	1,213	0.3
Officer commissioning program	9,691	2.37
Other	5,147	1.26
Pattern of minor disciplinary infractions	1,508	0.37
Permanent disability retirement	10,801	2.64
Retirement, 20 to 30 years of service	39,925	9.78
Secretarial authority	624	0.15
Temporary disability retirement	10,408	2.55
Unfitness, reason unknown	692	0.17
Unqualified for active duty, other	18,979	4.65
Unsatisfactory performance (former Expeditious		29
Discharge program)	9,061	2.22
ADM	IINISTRATIVE RI	CORD 003039

ADMINISTRATIVE RECORD 003039

COST DATA

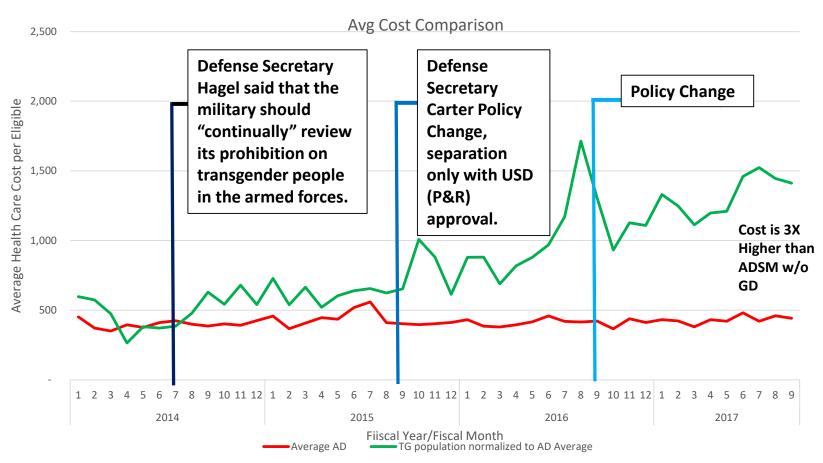
Cost of Services for Gender Dysphoria

(Purchased Care Paid Costs; Direct Care Estimated Costs)

	FY14	FY15		FY16	FY17	TOTAL
Direct Care	\$ 82,558	\$ 83,563	\$	650,492	\$ 2,172,849	\$ 2,989,462
Purchased Care	\$ 5,421	\$ 3,884	\$	10,094	\$ 16,509	\$ 35,908
Pharmacy	\$ 1,264	\$ 2,693	\$	3,406	\$ 6,130	\$ 13,493
TOTAL	\$ 89,243	\$ 90,140	6	663,992	\$ 2,195,488	\$ 3,038,863

Average Health Care Expenditures:

Transgender Active Duty (TRICARE Prime) vs Average Active Duty



Source: M2 (Purchased Care: Inpatient (TED-I); Professional (TED-NI)); (Direct Care: Inpatient (SIDR); Professional (CAPER)); Pharmacy (PDTS); Population (DEERS)

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